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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,752

11/03/2003

Hamid R. Borzabadi

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DELPHI TECHNOLOGIES, INC.

M/C 480-410-202

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EXAMINER

ALLEN, ANDRE J

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,752

Applicant(s)

BORZABADI ET AL.

Examiner

Andre J. Allen

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,7,15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Herb al.

Regarding claims 1, and 15 Herb et al teaches a base structure (col. 6 line 3); a cantilever member 45 (abstract) formed in the base structure by an isolation gap 52; and a pressure sensing element 10 located on the cantilever member 45, wherein the cantilever member provides stress isolation to the pressure sensing element (col. 5 lines 33-38)

Regarding claims 7 and 19 Herb et al teaches a housing having a ceramic material (col. 5 lines 46-49.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2,3,5,6,10,12,13,16-18 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Herb et al in view of Chapman et al.

Regarding claims 2,3,5,6,9,10,12,13,16-18 Herb teaches all the basic features of the claimed invention except a base structure having a first member connected to a second member having a substrate, wherein the cantilever member is formed by providing the isolation gap between the first and second members and adhering with respect to the members. Chapman teaches at least two base members (abstract) and the implementation of stress isolation (col. 1 lines 49-50). It would have been obvious to a person having ordinary skill in the art of manufacturing transducer arrangements at the time the invention was made to modify the cantilever, base and stress isolation techniques taught by Herb et al to include an additional base member as taught by Chapman et al for the purpose of fabricating an arrangement that could be used in high pressure with extreme physical and chemical conditions ((Chapman et al (col. 2

lines 50-55)). With respect to the arrangement of the gap being between the two members and how it is adhered with respect to the said members, since Herb et al as modified by Chapman et al at least teaches the inventive concept of providing a cantilever member to provide stress isolation and multiple base members, lacking any criticality it would have been obvious to a person having ordinary skill in the art to arrange and couple the cited elements in the most efficient and feasible position that offers the most optimum performance since the reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is a consideration within the skill of the art. In re Gazda, 219 F.2d 449, 104 USPQ 400 (CCPA 1955); In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

3. Claims 4,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herb et al in view of Chapman et al as applied to claims 2,3,5,6,10,12,13,16-18 above, and further in view of Kuzina et al.

Regarding claims 4 and 11 Herb et al in view of Chapman et al teaches the basic features of the claimed invention except a sensor cell with circuitry. Kuzina et al teaches a pressure sensing apparatus having stress isolation (abstract) that includes a sensor cell 28 and circuitry (col. 3 line 28). It would have been obvious to a person having ordinary skill in the art of pressure sensor at the time the invention was made to modify the sensing devices taught by Herb et al in view of Chapman et al with a sensor cell as taught by Kuzina et al for the purpose of

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receiving a pressure applied to the apparatus to be sensed (col. 4 lines 18-19

Kuzina et al)

4. Claims 8 and 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herb et al.

Regarding claims 8 and 20 Herb teaches a ceramic material as stated above but does not explicitly show a low temperature co-fired ceramic. However, lacking any criticality it would have been obvious to a person having ordinary skill in the art of pressure sensing housings to use any ceramic readily available to the manufacturer since it has been held to be within the general skill of a worker to select a known material on the basis of its suitability for the intended use. In re Leshin, 125 USPQ 416


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone number is 571-272-2174. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andre Allen
Patent Examiner
Art Unit 2855


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